Umesh K Mishra

List of Publications by Year
in descending order

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229	8,675	41	85
papers	citations	h-index	g-index

71102 53230

231	231	231	5245
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Acceptor traps as the source of holes in p-type N-polar GaN/(AlN/AlGaN) superlattices. Applied Physics Letters, 2022, 120, .	3.3	5
2	Demonstration of Acceptor-Like Traps at Positive Polarization Interfaces in Ga-Polar P-type (AlGaN/AlN)/GaN Superlattices. Crystals, 2022, 12, 784.	2.2	2
3	pH-Dependent surface charge at the interfaces between aluminum gallium nitride (AlGaN) and aqueous solution revealed by surfactant adsorption. Journal of Colloid and Interface Science, 2021, 583, 331-339.	9.4	4
4	Metal Organic Vapor Phase Epitaxy of Thick N-Polar InGaN Films. Electronics (Switzerland), 2021, 10, 1182.	3.1	3
5	6.2 W/Mm and Record 33.8% PAE at 94 GHz From N-Polar GaN Deep Recess MIS-HEMTs With ALD Ru Gates. IEEE Microwave and Wireless Components Letters, 2021, 31, 748-751.	3.2	35
6	Investigation and optimization of HfO2 gate dielectric on N-polar GaN: Impact of surface treatments, deposition, and annealing conditions. Applied Physics Letters, 2021, 119, .	3.3	9
7	Evaluation of linearity at 30 GHz for N-polar GaN deep recess transistors with 10.3 W/mm of output power and 47.4% PAE. Applied Physics Letters, 2021, 119, .	3.3	15
8	Patterned IIIâ€Nitrides on Porous GaN: Extending Elastic Relaxation from the Nanoâ€•to the Micrometer Scale. Physica Status Solidi - Rapid Research Letters, 2021, 15, 2100234.	2.4	9
9	Effects of surface oxidation on the pH-dependent surface charge of oxidized aluminum gallium nitride. Journal of Colloid and Interface Science, 2021, 603, 604-614.	9.4	3
10	Demonstration of a GaN/AlGaN Superlattice-Based p-Channel FinFET With High ON-Current. IEEE Electron Device Letters, 2020, 41, 220-223.	3.9	36
11	Optimization of Digital Growth of Thick N-Polar InGaN by MOCVD. Journal of Electronic Materials, 2020, 49, 3450-3454.	2.2	2
12	AlGaN/GaN Superlatticeâ€Based pâ€Type Fieldâ€Effect Transistor with Tetramethylammonium Hydroxide Treatment. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 1900692.	1.8	20
13	Near-ideal Ru/N-polar GaN Schottky diode with ultralow reverse leakage. , 2020, , .		0
14	A Novel Concept using Derivative Superposition at the Device-Level to Reduce Linearity Sensitivity to Bias in N-polar GaN MISHEMT. , 2020, , .		5
15	Ru/N-Polar GaN Schottky Diode With Less Than 2 Î¼A/cmÂ² Reverse Current. IEEE Electron Device Letters, 2020, 41, 1468-1471.	3.9	4
16	Proposed existence of acceptor-like traps at positive polarization interfaces in p-type III-nitride semiconductors. Applied Physics Letters, 2020, 117, .	3.3	12
17	Color-tunable <10â€‰<i> Î¼ </i>m square InGaN micro-LEDs on compliant GaN-on-porous-GaN pseudo-substrates. Applied Physics Letters, 2020, 117, .	3.3	44
18	Method of growing elastically relaxed crack-free AlGaN on GaN as substrates for ultra-wide bandgap devices using porous GaN. Applied Physics Letters, 2020, 117, .	3.3	15

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19	N-Polar GaN-on-Sapphire Deep Recess HEMTs With High W-Band Power Density. IEEE Electron Device Letters, 2020, 41, 1633-1636.	3.9	31
20	A systematic and quantitative analysis of the bulk and interfacial properties of the AlSiO dielectric on N-polar GaN using capacitanceâ€“voltage methods. Journal of Applied Physics, 2020, 128, 074101.	2.5	4
21	Improved operation stability of in situ AlSiO dielectric grown on (000â€1) N-polar GaN by MOCVD. Applied Physics Express, 2020, 13, 061010.	2.4	7
22	Growth of strain-relaxed InGaN on micrometer-sized patterned compliant GaN pseudo-substrates. Applied Physics Letters, 2020, 116, .	3.3	38
23	Bias-Dependent Electron Velocity Extracted From N-Polar GaN Deep Recess HEMTs. IEEE Transactions on Electron Devices, 2020, 67, 1542-1546.	3.0	16
24	High Linearity and High Gain Performance of N-Polar GaN MIS-HEMT at 30 GHz. IEEE Electron Device Letters, 2020, 41, 681-684.	3.9	46
25	Observation of I_D-V_D Kink in N-Polar GaN MIS-HEMTs at Cryogenic Temperatures. IEEE Electron Device Letters, 2020, 41, 345-348.	3.9	15
26	W-Band Power Performance of SiN-Passivated N-Polar GaN Deep Recess HEMTs. IEEE Electron Device Letters, 2020, 41, 349-352.	3.9	74
27	An improved methodology for extracting interface state density at Si3N4/GaN. Applied Physics Letters, 2020, 116, .	3.3	23
28	interfacial <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mrow><mml:mrow><mml:mi mathvariant="normal">N</mml:mi></mml:mrow></mml:mrow></mml:math> Vacancies in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mrow><mml:mi>Ga</mml:mi><mml:mi		

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37	First demonstration of improvement in hole conductivity in<i>c</i>-plane III-Nitrides through application of uniaxial strain. Japanese Journal of Applied Physics, 2019, 58, 030908.	1.5	16
38	Virtual-Source Modeling of N-polar GaN MISHEMTS. , 2019, , .		3
39	Enhanced mobility in vertically scaled N-polar high-electron-mobility transistors using GaN/InGaN composite channels. Applied Physics Letters, 2018, 112, .	3.3	7
40	Analysis of MOCVD SiNx Passivated N-Polar GaN MIS-HEMTs on Sapphire With High $f_{max}cdot V_{DS,Q}$. IEEE Electron Device Letters, 2018, 39, 409-412.	3.9	17
41	Metal-organic chemical vapor deposition of N-polar InN quantum dots and thin films on vicinal GaN. Journal of Applied Physics, 2018, 123, .	2.5	17
42	Demonstration of Constant 8 W/mm Power Density at 10, 30, and 94 GHz in State-of-the-Art Millimeter-Wave N-Polar GaN MISHEMTs. IEEE Transactions on Electron Devices, 2018, 65, 45-50.	3.0	153
43	Corrections to â€œ<italic>In Situ</italic> Oxide, GaN Interlayer-Based Vertical Trench MOSFET (OG-FET) on Bulk GaN Substratesâ€™ [Mar 17 353-355]. IEEE Electron Device Letters, 2018, 39, 316-316.	3.9	4
44	Large-Area <italic>In-Situ</italic> Oxide, GaN Interlayer-Based Vertical Trench MOSFET (OG-FET). IEEE Electron Device Letters, 2018, 39, 711-714.	3.9	52
45	N-Polar GaN HEMTs Exhibiting Record Breakdown Voltage Over 2000 V and Low Dynamic On-Resistance. IEEE Electron Device Letters, 2018, 39, 1014-1017.	3.9	70
46	Observation of Hot Electron and Impact Ionization in N-Polar GaN MIS-HEMTs. IEEE Electron Device Letters, 2018, 39, 1007-1010.	3.9	23
47	Improved Dynamic R_{ON} of GaN Vertical Trench MOSFETs (OG-FETs) Using TMAH Wet Etch. IEEE Electron Device Letters, 2018, 39, 1030-1033.	3.9	25
48	N-Polar GaN Cap MISHEMT With Record Power Density Exceeding 6.5 W/mm at 94 GHz. IEEE Electron Device Letters, 2017, 38, 359-362.	3.9	74
49	Suppression of Mg propagation into subsequent layers grown by MOCVD. Journal of Applied Physics, 2017, 121, .	2.5	24
50	In Situ <italic>O</italic>xide, <italic>G</italic>aN Interlayer-Based Vertical Trench MOS<italic>FET</italic> (<italic>OG-FET</italic>) on Bulk GaN substrates. IEEE Electron Device Letters, 2017, 38, 353-355.	3.9	130
51	Indium segregation in N-polar InGaN quantum wells evidenced by energy dispersive X-ray spectroscopy and atom probe tomography. Applied Physics Letters, 2017, 110, .	3.3	34
52	Metal-organic chemical vapor deposition of high quality, high indium composition N-polar InGaN layers for tunnel devices. Journal of Applied Physics, 2017, 121, 185707.	2.5	18
53	Vertical transport in isotype InAlN/GaN dipole induced diodes grown by molecular beam epitaxy. Journal of Applied Physics, 2017, 121, .	2.5	2
54	Ca 2+ detection utilising AlGaN/GaN transistors with ion-selective polymer membranes. Analytica Chimica Acta, 2017, 987, 105-110.	5.4	36

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55	Atom Probe Tomography Quantification of Alloy Fluctuations in (Al,In,Ga)N. Microscopy and Microanalysis, 2017, 23, 716-717.	0.4	1
56	Maskless regrowth of GaN for trenched devices by MOCVD. Applied Physics Letters, 2017, 111, .	3.3	6
57	Impact of oxygen precursor flow on the forward bias behavior of MOCVD-Al2O3 dielectrics grown on GaN. Journal of Applied Physics, 2017, 122, 174101.	2.5	4
58	Lateral GaN Devices for Power Applications (from kHz to GHz). Power Electronics and Power Systems, 2017, , 69-99.	0.6	9
59	High Spatial Resolution Energy Dispersive X-ray Spectroscopy and Atom Probe Tomography study of Indium segregation in N-polar InGaN Quantum Wells. Microscopy and Microanalysis, 2017, 23, 1448-1449.	0.4	1
60	Demonstrating >1.4 kV OG-FET performance with a novel double field-plated geometry and the successful scaling of large-area devices. , 2017, , .		53
61	Plasma-assisted molecular beam epitaxy growth diagram of InGaN on (0001)GaN for the optimized synthesis of InGaN compositional grades. Physica Status Solidi (B): Basic Research, 2016, 253, 626-629.	1.5	15
62	Plasma-assisted molecular beam epitaxy growth diagram of InGaN on (0001)GaN for the optimized synthesis of InGaN compositional grades (Phys. Status Solidi B 4/2016). Physica Status Solidi (B): Basic Research, 2016, 253, 792-792.	1.5	0
63	Optimization of a chlorine-based deep vertical etch of GaN demonstrating low damage and low roughness. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2016, 34, .	2.1	16
64	W-band passive load pull system for on-wafer characterization of high power density N-polar GaN devices based on output match and drive power requirements vs. gate width. , 2016, , .		16
65	Barrier height inhomogeneity and its impact on (Al,In,Ga)N Schottky diodes. Journal of Applied Physics, 2016, 119, .	2.5	29
66	Model to explain the behavior of 2DEG mobility with respect to charge density in N-polar and Ga-polar AlGaN-GaN heterostructures. Journal of Applied Physics, 2016, 120, .	2.5	31
67	N-Polar Deep Recess MISHEMTs With Record 2.9 W/mm at 94 GHz. IEEE Electron Device Letters, 2016, 37, 713-716.	3.9	25
68	OG-FET: An In-Situ ${O}$ xide, ${G}$ aN Interlayer-Based Vertical Trench MOSFET. IEEE Electron Device Letters, 2016, 37, 1601-1604.	3.9	63
69	Small-signal model extraction of mm-wave N-polar GaN MISHEMT exhibiting record performance: Analysis of gain and validation by 94 GHz loadpull. , 2016, , .		24
70	mm-Wave N-polar GaN MISHEMT with a self-aligned recessed gate exhibiting record 4.2 W/mm at 94 GHz on Sapphire. , 2016, , .		8
71	High frequency N-polar GaN planar MIS-HEMTs on sapphire with high breakdown and low dispersion. , 2016, , .		19
72	N-Polar GaN MIS-HEMTs on Sapphire With High Combination of Power Gain Cutoff Frequency and Three-Terminal Breakdown Voltage. IEEE Electron Device Letters, 2016, 37, 77-80.	3.9	33

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73	The Role of the Base Stack on the AC Performance of GaN Hot Electron Transistor. IEEE Electron Device Letters, 2015, 36, 669-671.	3.9	2
74	Design Space of III-N Hot Electron Transistors Using AlGaN and InGaN Polarization-Dipole Barriers. IEEE Electron Device Letters, 2015, 36, 23-25.	3.9	5
75	Common Emitter Current Gain >1 in III-N Hot Electron Transistors With 7-nm GaN/InGaN Base. IEEE Electron Device Letters, 2015, 36, 439-441.	3.9	11
76	Barrier reduction via implementation of InGaN interlayer in wafer-bonded current aperture vertical electron transistors consisting of InGaAs channel and N-polar GaN drain. Applied Physics Letters, 2015, 106, .	3.3	4
77	Method to Predict and Optimize Charge Sensitivity of Ungated AlGaN/GaN HEMT-Based Ion Sensor Without Use of Reference Electrode. IEEE Sensors Journal, 2015, 15, 5320-5326.	4.7	13
78	Recent progress in metal-organic chemical vapor deposition of $left(000ar{1} ight)$ N-polar group-III nitrides. Semiconductor Science and Technology, 2014, 29, 113001.	2.0	163
79	Dielectric stress tests and capacitance-voltage analysis to evaluate the effect of post deposition annealing on Al2O3 films deposited on GaN. Applied Physics Letters, 2014, 105, 222905.	3.3	10
80	Vertical electron transistors with In<inf>0.53</inf>Ga<inf>0.47</inf>As channel and N-polar In<inf>0.1</inf>Ga<inf>0.9</inf>N/GaN drain achieved by direct wafer-bonding. , 2014, , .		1
81	Common emitter operation of III-N HETs using AlGaN and InGaN polarization-dipole induced barriers. , 2014, , .		1
82	Elimination of columnar microstructure in N-face InAlN, lattice-matched to GaN, grown by plasma-assisted molecular beam epitaxy in the N-rich regime. Applied Physics Letters, 2014, 104, .	3.3	21
83	Design of polarization-dipole-induced isotype heterojunction diodes for use in IIIâ€“N hot electron transistors. Applied Physics Express, 2014, 7, 014102.	2.4	11
84	Low ON-resistance and high current GaN Vertical Electron Transistors with buried p-GaN layers. , 2014, , .		4
85	Engineering the (In, Al, Ga)N back-barrier to achieve high channel-conductivity for extremely scaled channel-thicknesses in N-polar GaN high-electron-mobility-transistors. Applied Physics Letters, 2014, 104, 092107.	3.3	26
86	A donor-like trap at the InGaN/GaN interface with net negative polarization and its possible consequence on internal quantum efficiency. Semiconductor Science and Technology, 2013, 28, 105021.	2.0	12
87	Capacitance-voltage characterization of interfaces between positive valence band offset dielectrics and wide bandgap semiconductors. Journal of Applied Physics, 2013, 114, .	2.5	34
88	Controlling electronic properties of wafer-bonded interfaces among dissimilar materials: A path to developing novel wafer-bonded devices. , 2013, , .		0
89	Effects of H2O Pretreatment on the Capacitanceâ€“Voltage Characteristics of Atomic-Layer-Deposited Al2O3 on Ga-Face GaN Metalâ€“Oxideâ€“Semiconductor Capacitors. Journal of Electronic Materials, 2013, 42, 33-39.	2.2	33
90	Atom probe analysis of AlN interlayers in AlGaN/AlN/GaN heterostructures. Applied Physics Letters, 2013, 102, .	3.3	62

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91	N-polar GaN epitaxy and high electron mobility transistors. Semiconductor Science and Technology, 2013, 28, 074009.	2.0	172
92	Neutron irradiation effects on gallium nitride-based Schottky diodes. Applied Physics Letters, 2013, 103, .	3.3	23
93	Controlling electronic properties of wafer-bonded interfaces among dissimilar materials: A path to developing novel wafer-bonded devices. , 2013, , .		1
94	Very high channel conductivity in ultra-thin channel N-polar GaN/(AlN, InAlN, AlGaN) high electron mobility hetero-junctions grown by metalorganic chemical vapor deposition. Applied Physics Letters, 2013, 102, 232104.	3.3	19
95	Wafer-Bonded p-n Heterojunction of GaAs and Chemomechanically Polished N-Polar GaN. IEEE Electron Device Letters, 2013, 34, 42-44.	3.9	18
96	Design of integrated III-nitride/non-III-nitride tandem photovoltaic devices. Journal of Applied Physics, 2012, 111, 054503.	2.5	25
97	Effect of quantum well cap layer thickness on the microstructure and performance of InGaN/GaN solar cells. Applied Physics Letters, 2012, 100, .	3.3	53
98	Molecular beam epitaxy of InAlN lattice-matched to GaN with homogeneous composition using ammonia as nitrogen source. Applied Physics Letters, 2012, 100, .	3.3	25
99	Strain and Temperature Dependence of Defect Formation at AlGaN/GaN High-Electron-Mobility Transistors on a Nanometer Scale. IEEE Transactions on Electron Devices, 2012, 59, 2667-2674.	3.0	14
100	Impact of Moisture and Fluorocarbon Passivation on the Current Collapse of AlGaN/GaN HEMTs. IEEE Electron Device Letters, 2012, 33, 1378-1380.	3.9	31
101	Effect of dislocations on electron mobility in AlGaN/GaN and AlGaN/AlN/GaN heterostructures. Applied Physics Letters, 2012, 101, .	3.3	66
102	Experimental demonstration of a wafer-bonded heterostructure based unipolar transistor with In<inf>0.53</inf>Ga<inf>0.47</inf>as channel and III-N drain. , 2012, , .		0
103	CAVET on Bulk GaN Substrates Achieved With MBE-Regrown AlGaN/GaN Layers to Suppress Dispersion. IEEE Electron Device Letters, 2012, 33, 41-43.	3.9	149
104	Enhancement-Mode N-Polar GaN MOS-HFET With 5-nm GaN Channel, 510-mS/mm g_{m}, and 0.66-$Omegacdot hbox{mm}$$R_{m on}$. IEEE Electron Device Letters, 2012, 33, 26-28.	3.9	35
105	Microwave Power Performance N-Polar GaN MISHEMTs Grown by MOCVD on SiC Substrates Using an $hbox{Al}_{2}hbox{O}_{3}$ Etch-Stop Technology. IEEE Electron Device Letters, 2012, 33, 44-46.	3.9	36
106	Interface states at the SiN/AlGaN interface on GaN heterojunctions for Ga and N-polar material. Journal of Applied Physics, 2012, 111, .	2.5	28
107	Scaled Self-Aligned N-Polar GaN/AlGaN MIS-HEMTs With f_{T} of 275 GHz. IEEE Electron Device Letters, 2012, 33, 961-963.	3.9	22
108	Effects of gate shaping and consequent process changes on AlGaN/GaN HEMT reliability. Physica Status Solidi (A) Applications and Materials Science, 2012, 209, 2646-2652.	1.8	9

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109	Anomalous Output Conductance in N-Polar GaN High Electron Mobility Transistors. IEEE Transactions on Electron Devices, 2012, 59, 2988-2995.	3.0	18
110	Design of High-Aspect-Ratio T-Gates on N-Polar GaN/AlGaN MIS-HEMTs for High f_{max}. IEEE Electron Device Letters, 2012, 33, 785-787.	3.9	51
111	Self-Aligned N-Polar GaN/InAlN MIS-HEMTs With Record Extrinsic Transconductance of 1105 mS/mm. IEEE Electron Device Letters, 2012, 33, 794-796.	3.9	27
112	Correlation between threading dislocation density and sheet resistance of AlGaN/AlN/GaN heterostructures grown by plasma-assisted molecular beam epitaxy. Applied Physics Letters, 2012, 100, 262102.	3.3	33
113	Capacitance-voltage profiling on polar III-nitride heterostructures. Journal of Applied Physics, 2012, 112, .	2.5	10
114	InGaN solar cell requirements for high-efficiency integrated III-nitride/non-III-nitride tandem photovoltaic devices. Journal of Applied Physics, 2012, 111, .	2.5	19
115	A High-Efficiency Class F MMIC Power Amplifier at 4.0 GHz Using AlGaN/GaN HEMT Technology. , 2012, , .		4
116	Effect of indium on the conductivity of polyâ€crystalline GaN grown on high purity fused silica. Physica Status Solidi (A) Applications and Materials Science, 2012, 209, 431-433.	1.8	3
117	AlGaN/GaN heterojunction bipolar transistors by ammonia molecular beam epitaxy. Physica Status Solidi (A) Applications and Materials Science, 2012, 209, 216-220.	1.8	9
118	Enhancementâ€mode <i>m</i> â€plane AlGaN/GaN HFETs with regrown n⁺â€GaN contact layer. Physica Status Solidi C: Current Topics in Solid State Physics, 2012, 9, 891-893.	0.8	3
119	InGaAs-InGaN Wafer-Bonded Current Aperture Vertical Electron Transistors (BAVETs). Journal of Electronic Materials, 2012, 41, 857-864.	2.2	10
120	Anomalous output conductance in N-polar GaN-based MIS-HEMTs. , 2011, , .		3
121	Enhancement-Mode m-plane AlGaN/GaN Heterojunction Field-Effect Transistors with +3 V of Threshold Voltage Using Al$_{2}$O$_{3}$ Deposited by Atomic Layer Deposition. Applied Physics Express, 2011, 4, 096501.	2.4	17
122	Effect of doping and polarization on carrier collection in InGaN quantum well solar cells. Applied Physics Letters, 2011, 98, .	3.3	68
123	N-Polar GaN MIS-HEMTs With a 12.1-W/mm Continuous-Wave Output Power Density at 4 GHz on Sapphire Substrate. IEEE Electron Device Letters, 2011, 32, 635-637.	3.9	29
124	RF Performance of Deep-Recessed N-Polar GaN MIS-HEMTs Using a Selective Etch Technology Without Ex Situ Surface Passivation. IEEE Electron Device Letters, 2011, 32, 134-136.	3.9	16
125	Experimental Demonstration of III-Nitride Hot-Electron Transistor With GaN Base. IEEE Electron Device Letters, 2011, 32, 1212-1214.	3.9	23
126	High internal and external quantum efficiency InGaN/GaN solar cells. Applied Physics Letters, 2011, 98, .	3.3	195

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127	Integrated non-III-nitride/III-nitride tandem solar cell. , 2011, , .		0
128	Self-Aligned Technology for N-Polar GaN/Al(Ga)N MIS-HEMTs. IEEE Electron Device Letters, 2011, 32, 33-35.	3.9	14
129	Two-Stage High-Gain High-Power Distributed Amplifier Using Dual-Gate GaN HEMTs. IEEE Transactions on Microwave Theory and Techniques, 2011, 59, 2059-2063.	4.6	33
130	Growth and characterization of Nâ€polar GaN and AlGaN/GaN HEMTs on (111) silicon. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 2086-2088.	0.8	6
131	Observation of positive thermal power coefficient in InGaN/GaN quantum well solar cells. Applied Physics Letters, 2011, 99, 071104.	3.3	22
132	Lateral confinement of electrons in vicinal N-polar AlGaN/GaN heterostructure. Applied Physics Letters, 2010, 97, 162106.	3.3	15
133	Properties of In-Doped ZnO Films Grown by Metalorganic Chemical Vapor Deposition on GaN(0001) Templates. Journal of Electronic Materials, 2010, 39, 608-611.	2.2	21
134	A scalable EE_HEMT based large signal model for multiâ€finger AlGaN/GaN HEMTs for linear and nonâ€linear circuit design. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 2450-2454.	0.8	3
135	Optimization of the p-GaN window layer for InGaN/GaN solar cells. , 2010, , .		5
136	Effects of oxidation on surface chemical states and barrier height of AlGaN/GaN heterostructures. Applied Physics Letters, 2010, 97, .	3.3	65
137	N-polar GaN-based MIS-HEMTs for mixed signal applications. , 2010, , .		1
138	Growth and characterization of In-polar and N-polar InAlN by metal organic chemical vapor deposition. Journal of Applied Physics, 2010, 107, .	2.5	30
139	High-efficiency class E MMIC power amplifiers at 4.0 GHz using AlGaN/GaN HEMT technology. , 2010, , .		2
140	p-n junctions on Ga-face GaN grown by NH3 molecular beam epitaxy with low ideality factors and low reverse currents. Applied Physics Letters, 2010, 97, .	3.3	45
141	Influence of AlN interlayer on the anisotropic electron mobility and the device characteristics of N-polar AlGaN/GaN metal-insulator-semiconductor-high electron mobility transistors grown on vicinal substrates. Journal of Applied Physics, 2010, 108, 074502.	2.5	21
142	Integrated Optical and Electrical Analysis: Identifying Location and Properties of Traps in AlGaN/GaN HEMTs During Electrical Stress. IEEE Electron Device Letters, 2010, 31, 662-664.	3.9	120
143	Polarity inversion of N-face GaN using an aluminum oxide interlayer. Journal of Applied Physics, 2010, 108, .	2.5	47
144	Distribution of donor states on etched surface of AlGaN/GaN heterostructures. Journal of Applied Physics, 2010, 108, 063719.	2.5	78

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145	N-Polar GaN/AlN MIS-HEMT for Ka-Band Power Applications. IEEE Electron Device Letters, 2010, 31, 1437-1439.	3.9	10
146	N-Polar InAlN/AlN/GaN MIS-HEMTs. IEEE Electron Device Letters, 2010, 31, 800-802.	3.9	29
147	Ion versus pH sensitivity of ungated AlGaN/GaN heterostructure-based devices. Applied Physics Letters, 2010, 97, .	3.3	35
148	Dispersion-free AlGaN/GaN CAVET with low R<inf>on</inf> achieved with plasma MBE regrown channel with Mg-ion-implanted current blocking layer. , 2010, , .		2
149	T-gate technology for N-polar GaN-based self-aligned MIS-HEMTs with state-of-the-art f<inf>MAX</inf> of 127 GHz: Pathway towards scaling to 30nm GaN HEMTs. , 2010, , .		2
150	Room temperature operation and DC characteristics of InAlN/GaN/AlGaN Hot Electron Transistors with common base transfer ratio, α = 0.97. , 2010, , .		0
151	Electrical properties of N-polar AlGaN/GaN high electron mobility transistors grown on SiC by metalorganic chemical vapor deposition. Applied Physics Letters, 2009, 94, .	3.3	28
152	High performance MBE-grown N-face microwave GaN HEMTs with >70% PAE. , 2009, , .		0
153	Optical and thermal properties of In<inf>12</inf>Ga<inf>88</inf>N/GaN solar cells. , 2009, , .		0
154	Electron transport in nitrogenâ€polar high electron mobility transistors. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, S960.	0.8	2
155	Growth of In-doped ZnO films by metalorganic chemical vapor deposition on GaN(0001) templates. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, 1464-1467.	0.8	3
156	Homoepitaxial growth and characterization of ZnO(0001) thin films grown by metalorganic chemical vapor epitaxy. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, 1460-1463.	0.8	3
157	High-Performance N-Face GaN Microwave MIS-HEMTs With > 70% Power-Added Efficiency. IEEE Electron Device Letters, 2009, 30, 802-804.	3.9	24
158	RF Performance of N-Polar AlGaN/GaN MIS-HEMTs Grown by MOCVD on Sapphire Substrate. IEEE Electron Device Letters, 2009, 30, 584-586.	3.9	24
159	f_{T} and $f_{m MAX}$ of 47 and 81 GHz , Respectively, on N-Polar GaN/AlN MIS-HEMT. IEEE Electron Device Letters, 2009, 30, 599-601.	3.9	17
160	A comparative study of effects of SiNx deposition method on AlGaN/GaN heterostructure field-effect transistors. Applied Physics Letters, 2009, 94, .	3.3	40
161	High power N-face GaN high electron mobility transistors grown by molecular beam epitaxy with optimization of AlN nucleation. Applied Physics Letters, 2009, 94, .	3.3	27
162	AlGaN/GaN HEMT With a Transparent Gate Electrode. IEEE Electron Device Letters, 2009, 30, 439-441.	3.9	20

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163	Effect of Dielectric Thickness on Power Performance of AlGaN/GaN HEMTs. IEEE Electron Device Letters, 2009, 30, 313-315.	3.9	31
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